

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

Claims 17-30 were previously canceled without prejudice or disclaimer.

Listing of Claims:

1. (Currently Amended) A method comprising:

~~requesting~~ sending a request for information relating to a plurality of link addresses ~~from~~ to a link address manager of an access network (AN), where the ~~requesting is performed~~ request is sent by a gateway mobile terminal of a mobile network (MONET);

receiving a response to the request; and

allocating, based on the response, individual ones of assigned link addresses to individual ones of network nodes of the MONET.

2. (Previously Presented) A method as in claim 58, where each network node sends a neighbor advertisement to the AR to declare the link address allocated to individual ones of the network nodes.

3. (Previously Presented) A method as in claim 58, where the gateway mobile terminal sends at least one neighbor advertisement to the AR to declare the link addresses allocated to individual ones of the network nodes.

4. (Original) A method as in claim 1, where the request is made to obtain a set of link layer addresses (LLAs) that are allocated to individual ones of the network nodes.

5. (Previously Presented) A method as in claim 1, where the request is made to obtain a group identification (Group_ID), where the method further comprises using an obtained Group_ID to formulate a set of link layer addresses (LLAs) that are allocated to individual ones of the network nodes.
6. (Previously Presented) A method as in claim 1, where the request is made to obtain a set of link layer addresses (LLAs), where the method further comprises mapping individual ones of the LLAs to individual hardwired addresses of individual ones of the network nodes.
7. (Previously Presented) A method as in claim 1, where the request is made to obtain a set of link layer addresses (LLAs), where the method further comprises mapping individual ones of the LLAs to individual media access control (MAC) addresses of individual ones of the network nodes.
8. (Previously Presented) A method as in claim 4, where the set of LLAs are associated with a first AP, the method further comprising, in response to changing a connection of the gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to reassociate the set of LLAs with the second AP.
9. (Previously Presented) A method as in claim 5, where the Group_ID is associated with a first AP, the method further comprising, in response to changing a connection of the Gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to reassociate the Group_ID with the second AP.
10. (Previously Presented) A method as in claim 5, where the Group_ID is associated with a first AP, the method further comprising, in response to changing a connection of the gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to obtain another Group_ID that is associated with the second AP.
11. (Previously Presented) A method as in claim 4, where the set of LLAs is tracked as a group.

12. (Original) A method as in claim 1, where said gateway mobile terminal comprises a wireless device.

13. (Original) A method as in claim 1, where said gateway mobile terminal comprises a cellular telephone.

14. (Original) A method as in claim 1, where said gateway mobile terminal comprises a mobile router (MR).

15. (Original) A method as in claim 1, where said link address manager is associated with said AN.

16. (Currently Amended) A system comprising:

a mobile network (MONET) having a gateway mobile terminal and at least one mobile network node (MNN); and

an access network (AN) comprising an access point (AP), an access router (AR) and a link layer address (LLA) manager configured to manage LLAs, said MONET being connectable via the gateway mobile terminal to the AP, where the gateway mobile terminal is configured, in response to the gateway mobile terminal connecting to the AP, to send a request from to the LLA manager for information relating to a plurality of LLAs, to receive a response to the request and to allocate, based on the response, individual ones of the plurality of LLAs to individual ones of the at least one MNN, where at least one of the gateway router or at least one MNN is configured to perform a neighbor discovery procedure with the AR to send at least one neighbor advertisement declaring at least one allocated LLA.

17-30. (Canceled)

31. (Currently Amended) A mobile station comprising:

a transceiver configured to enable communication such that the mobile station functions as a gateway mobile terminal for being coupled between at least one Mobile Network Node (MNN) and an access point (AP) of an access network (AN); and

a data processor configured, in response to the mobile station connecting to the AP, to send a request for information from to a link layer address (LLA) manager of the AN, wherein the information relates to a plurality of LLAs, and wherein the data processor is further configured, in response to receiving a response to the request, to allocate individual ones of the plurality of LLAs to individual ones of the MNNs.

32. (Previously Presented) A mobile station as in claim 31, where said data processor is operable to perform a neighbor discovery procedure with an access router (AR) of the AN to send at least one neighbor advertisement to declare an LLA allocated to the at least one MNN.

33. (Previously Presented) A mobile station as in claim 31, where the information relating to a plurality of LLAs comprises a group identification (Group_ID), and where said data processor is operable to use the Group_ID to formulate a set of LLAs, individual ones of which are allocated to individual ones of the MNNs.

34. (Original) A mobile station as in claim 31, where the information relating to a plurality of LLAs comprises a set of LLAs individual ones of which are mapped to a hardwired address of individual ones of the MNNs.

35. (Original) A mobile station as in claim 31, where the information relating to a plurality of LLAs comprises a set of LLAs individual ones of which are mapped to a media access control (MAC) address of individual ones of the MNNs.

36. (Previously Presented) A mobile station as in claim 31 where the request is made to obtain a

set of LLAs, where the set of LLAs are associated with a first AP, and where said data processor further operates, in response to changing a connection of the mobile station from the first AP to a second AP, to send a message to reassociate the set of LLAs with the second AP.

37. (Previously Presented) A mobile station as in claim 33 where the Group_ID is associated with a first AP, and where said data processor further operates, in response to changing a connection of the mobile station from the first AP to a second AP, to send a message to reassociate the Group_ID with the second AP.

38. (Previously Presented) A mobile station as in claim 33 where the Group_ID is associated with a first AP, and where said data processor further operates, in response to changing a connection of the mobile station from the first AP to a second AP, to send a message to obtain another Group_ID that is associated with the second AP.

39. (Original) A mobile station as in claim 31, where a set of LLAs are tracked as a group.

40. (Previously Presented) A mobile station as in claim 31, where said mobile station comprises a wireless device.

41. (Original) A mobile station as in claim 31, where said mobile station comprises a cellular telephone.

42. (Previously Presented) A mobile station as in claim 31, where said mobile station comprises a mobile router (MR).

43. (Currently Amended) A computer-readable medium storing a program of instructions executable by a data processor of a mobile station for performing operations, the operations comprising:

~~requesting~~ sending a request for information relating to a plurality of link addresses ~~from~~ to a link

address manager of an access network (AN), where the ~~requesting is performed~~ request is sent by a gateway mobile terminal of a mobile network (MONET);

receiving a response to the request; and

allocating, based on the response, individual ones of assigned link addresses to individual ones of network nodes of the MONET.

44. (Previously Presented) A computer-readable medium as in claim 43, the operations further comprising: performing a neighbor discovery procedure with an access router (AR) of the AN to send at least one neighbor advertisement declaring the allocated individual ones of the assigned link addresses

45. (Previously Presented) A computer-readable medium as in claim 44, where each network node sends a neighbor advertisement to the AR to declare the link address allocated to the network node.

46. (Previously Presented) A computer-readable medium as in claim 43, where the request is made to obtain a set of link layer addresses (LLAs) that are allocated to individual ones of the network nodes.

47. (Previously Presented) A computer-readable medium as in claim 46, where the set of LLAs are associated with a first AP, the operations further comprising, in response to changing a connection of the gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to reassociate the set of LLAs with the second AP.

48. (Previously Presented) A computer-readable medium as in claim 46, where the set of LLAs is tracked as a group.

49. (Previously Presented) A computer-readable medium as in claim 43, where the request is

made to obtain a group identification (Group_ID), where the operations further comprise using an obtained Group_ID to formulate a set of link layer addresses (LLAs) that are allocated to individual ones of the network nodes.

50. (Previously Presented) A computer-readable medium as in claim 49, where the Group_ID is associated with a first AP, the operations further comprising, in response to changing a connection of the Gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to reassociate the Group_ID with the second AP.

51. (Previously Presented) A computer-readable medium as in claim 49, where the Group_ID is associated with a first AP, the operations further comprising, in response to changing a connection of the gateway mobile terminal from the first AP to a second AP, sending a message from the gateway mobile terminal to obtain another Group_ID that is associated with the second AP.

52. (Previously Presented) A computer-readable medium as in claim 43, where the request is made to obtain a set of link layer addresses (LLAs), where the operations further comprise mapping individual ones of the LLAs to individual hardwired addresses of individual ones of the network nodes.

53. (Previously Presented) A computer-readable medium as in claim 43, where the request is made to obtain a set of link layer addresses (LLAs), where the operations further comprise mapping individual ones of the LLAs to individual media access control (MAC) addresses of individual ones of the network nodes.

54. (Previously Presented) A computer-readable medium as in claim 43, where said gateway mobile terminal comprises a wireless device.

55. (Previously Presented) A computer-readable medium as in claim 43, where said gateway mobile terminal comprises a cellular telephone.

56. (Previously Presented) A computer-readable medium as in claim 43, where said gateway mobile terminal comprises a mobile router (MR).

57. (Previously Presented) A computer-readable medium as in claim 43, where said link address manager is associated with said AN.

58. (Previously Presented) A method as in claim 1, further comprising: performing a neighbor discovery procedure with an access router (AR) of the AN to send at least one neighbor advertisement declaring the allocated individual ones of the assigned link addresses.

59. (Previously Presented) A system as in claim 16, where at least one of the gateway router and the MNNs is configured to perform a neighbor discovery procedure with the AR to send at least one neighbor advertisement declaring at least one allocated LLA.